

REMARKS

Rejections under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 1-6 and 9-20 under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,397,552 to Weigold et al in view of U.S. Patent No. 3,617,382 to Natsis et al. Applicants respectfully traverse.

The independent claims of the present recite a “baffle...having a section which is tapered to bifurcate the stream of air passing over said baffle...” (emphasis added). Weigold in view of Natsis does not teach a tapered baffle for bifurcating gas flow.

Weigold teaches a reactor sleeve having a baffle centrally positioned, which is “designed to force gases to flow centrally”. Accordingly, as illustrated by Figure 15 of Weigold, gas flowing through the reactor sleeve is forced through a central aperture 282. It is noted that the Examiner has indicated that some mixing inevitably occurs as the gas is forced through the aperture. However, the Applicant submits that a tapered baffle, which bifurcates the stream of air passing over the baffle is structurally different from a single hole in the center of a donut shaped baffle and produces significant mixing advantages over the prior art.

In a non-limiting example of a tapered baffle, Figure 2.2 illustrates that the flow of air is allowed to move through the holes of the baffle, or to the left, or right top portions of the baffle. As depicted in Figure 2 reference character 70 indicates the tapered baffle, wherein the baffle forces an unmixed stream of air 60 to pass either through a set of holes 72, over the right side of a tapered section of a tapered baffle 80, or over the left side of a tapered section of a tapered baffle 80. Accordingly, as depicted in the non-limiting example of Figure 2, a tapered baffle of the present invention is structurally different than a centrally located hole designed to redirect air.

Accordingly, while Weigold’s disclosure teaches the use of a centrally located hole in a donut shaped baffle for the direction of air. Weigold fails to teach a tapered baffle capable of bifurcating the stream of air passing over said baffle.

Examiner cites Natsis to supplement Weigold's disclosure. Natsis teaches a structure which comprises a plurality of baffles which subject fluid flowing therethrough to intensive mixing. It is important to note that the baffle system as disclosed in Natsis does not comprise, teach, or fairly suggest the use of a tapered baffle which bifurcates the flow of air. Instead, Natsis discloses a plurality non tapered baffles. Natsis's baffles comprise a single opening directing the flow of fluid through a series of baffles, or effectively through winding tube.

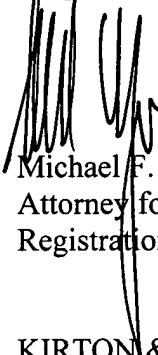
Accordingly, Applicant asserts that the proposed combination of Weigold and Natsis fail to teach or fairly suggest all of the claim limitations included in the independent claims and therefore fails to establish a *prima facie* case of obviousness. Applicants request that the rejection be withdrawn and the applicant be placed in condition for allowance.

CONCLUSION

Applicants submit that the amendments made herein do not add new matter and that the claims are now in condition for allowance. Accordingly, Applicants request favorable reconsideration. If the Examiner has any questions or concerns regarding this communication, the Examiner is invited to call the undersigned.

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Respectfully submitted,



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